IN THE CLAIMS

1. (Currently Amended) An electronic tag detection system for detecting multiple electronically detectable tags in a detection zone, comprising:

first and second field generators, each having a respective antenna for generating an electromagnetic field in a detection zone defined between said antennas; and,

at least one of said field generators being responsive to a presence of at least two electronically detectable tags in said detection zone, for varying an intensity of at least one of said electromagnetic fields so that only one of said electronically detectable tags is detected in said varied electromagnetic field.

2. (Original) A system in accordance with claim 1, wherein the intensity of at least one of said electromagnetic fields is varied by adjusting an amplitude of electric power delivered to the antenna of the field generator producing said electromagnetic field.

3. (Original) A system in accordance with claim 1, wherein at least one of said field generators varies said intensity of at least one of said electromagnetic fields in response to a receipt of corrupted data from at least one of said two electronically detectable tags in said detection zone.

4. (Original) A system in accordance with claim 1, further comprising:

a controlling means for detecting the presence of at least two electronically detectable tags in said detection zone and for varying intensities of said electromagnetic fields in response to said detection.

5. (Original) A system in accordance with claim 1, wherein said first and second field generators are responsive to the presence of at least two electronically detectable tags in said detection zone

6. (Original) A system in accordance with claim 1, wherein a second one of said field generators varies an intensity of a second one of said electromagnetic fields in response to the presence of at least two electronically detectable tags in said detection zone.

7. (Original) A system in accordance with claim 6, wherein the intensity of each of said electromagnetic fields is varied in inverse proportion to each other.

8. (Original) A system in accordance with claim 1, wherein an outer perimeter of each of said electromagnetic fields is defined by a minimum field intensity necessary to detect one of said electronically detectable tags.

9. (Original) A system in accordance with claim 8, wherein a portion of said perimeters of each of said electromagnetic fields substantially abut each another.

10. (Original) A system in accordance with claim 8, wherein each of said field generators is responsive to the presence of at least one electronically detectable tag within the perimeter of its associated electromagnetic field.

11. (Original) A system in accordance with claim 10, wherein in response to a detection of at least two electronically detectable tags within said detection zone, at least one of said field generators varies the intensity of at least one of said electromagnetic fields until there is no more than one electronically detectable tag within the perimeter of the associated electromagnetic field.

12. (Original) A system in accordance with claim 11, wherein in response to said detection presence of at least two electronically detectable tags in said detection zone, a second one of said field generators varies an intensity of a second one of said electromagnetic fields until there is no more than one electronically detectable tag within the perimeter of the associated electromagnetic field.

13. (Original) A system in accordance with claim 1, wherein at least one of said electromagnetic fields is varied in both small and large steps.

14. (Original) A system in accordance with claim 1, wherein at least one of said electromagnetic fields is varied first in large steps and then in small steps.

15. (Original) A system in accordance with claim 1, further comprising:

third and fourth field generators, each having a respective antenna for generating an electromagnetic field in said detection zone, wherein said third antenna is located vertically above said first, second, and fourth antennas, and said fourth antenna is located vertically below said first, second, and third antennas; and,

said electromagnetic fields generated by said third and fourth antennas are substantially perpendicular to the fields of said first and second antennas.

16. (Original) A system in accordance with claim 1, wherein no wires connect each of said fields generators to one another, and no wires connect each of said antennas to one another.

17. (Original) A method for detecting multiple electronically detectable tags in a detection zone, comprising:

providing first and second field generators, each having a respective antenna for generating an electromagnetic field in a detection zone defined between said antennas,

varying an intensity of at least one of said electromagnetic fields by at least one of said field generators being responsive to a presence of at least two electronically detectable tags in said detection zone.

18. (Original) The method of claim 17 further comprising varying said intensity of at least one of said electromagnetic fields in response to a receipt of corrupted data from at least one of said two electronically detectable tags in said detection zone.

19. (Original) The method of claim 18 further comprising varying an intensity of a second one of said electromagnetic fields in response to the presence of at least two electronically detectable tags in said detection zone

20. (Original) The method of claim 19 wherein the intensity of each of said electromagnetic fields is varied in inverse proportion to each other.